Remarks

A marked up version of the claims **(Version With Markings to Show Changes Made)** is provided beginning on a separate sheet. Claims 5-9 have been rejected under 35 U.S.C. 112, second paragraph as indefinite. Claims 5-9 have been cancelled. Applicants have amended the claims as shown in the attached copy with mark-ups to show changes.

Claims 1-5,7,8-10, and 12-22 have been rejected under 35 U.S.C. 102 as being anticipated by Workman et al (US 2132840) and under 35 U.S.C. 103(a) as obvious over Workman et al (US 2132840). Independent claims 1 and 12 have been amended to distinctly claim the invention. Workman et al (US 2132840) discloses a resilient mounting for supporting motors or other heavy machinery that vibrates during use with the mounting constructed to prevent excessive rebound of the supported vibrating machinery. As shown in FIG. 1 and 3, Workman et al (US 2132840) teaches that the "rubber structure is in contact with said supporting and supported structures" (column 2,lines 49-51) and not constrained between its inner member 17 and its outer member 16. The resilient mounting of Workman et al (US 2132840) is constructed to support heavy vibrating machinery and to absorb vertical vibrations thereof and is not iso-elastic since it is biased for stiffness in a vertical direction. Workman et al (US 2132840) teaches this non-iso-elastic bias for progressively increasing resistance to vertical loads at column 2, line 51 – column 3, line 4 by disclosing "Because of the rounded profile of the rubber contiguous with said regions of contact, said regions increase in area as the mounting is deformed when the supporting member 12 moves toward the supporting member 18 due to vertical vibration of one or both of said members. Thus the mounting offers progressively increasing resistance to such deformation as exerts a compressive force upon the rubber." Further, Workman's (US 2132840) non-iso-elastic mount teaches away from the presently claimed invention in that Workman claims in claim 1 (Column 1, lines 4 –6) the benefit of having "a substantial portion of the body of rubber being unconfined and exposed on the outer and inner surfaces thereof". Further at claim 2 (Column 4, lines 21-24), Workman (US 2132840) claims embedding metal flanges

"interiorly of said rubber body, said rubber body having substantial portion thereof that is unconfined." Workman clearly teaches away from the presently claimed invention's single resilient member constrained between the parallel angled surface of the inner member seat and the angled segment inner surface of the outer member to provide isoelastic displacement, with Workman's unconfined rubber body being the opposite of the presently claimed invention constrained single resilient member. Workman's required unconfined rubber body substantial portion and non-iso-elastic progressively increasing vertical resistance teaches away from the present invention as claimed in independent claims 1 and 12. Workman et al (US 2132840) does not anticipate or render obvious the presently claimed invention.

Claims 1 –22 have been rejected under 35 U.S.C. 103(a) as obvious over Nowak (US 5116030) in view of Kubaugh (US 2367830). Nowak (US 5116030) discloses a vibration isolator that requires two resilient members. Kubaugh (US 2367830) discloses a longitudinal channel resilient mounting which provides non-isoelastic "progressively increasing resistance" (Column 3, line3). Nowak (US 5116030) teaches a vibration isolator with two resilient members sandwiched between three rigid members (an inner member, an intermediate member, and a rigid cup plate). The proposed modification of Nowak to include Kubaugh's separation prevention does not obviate the invention as presently claimed with a single resilient member constrained between the shroud angled segment inner surface and the inner member frustoconical seat angled surface to provide an iso-elastic vibration isolator with a single resilient member. The proposed combination of Nowak with Kubaugh results in a vibration isolator with two resilient members and not one. Further the proposed combination of Nowak with Kubaugh results in outer member 55 with its shroud extended over the outer periphery of inner member 38, but the safety of the device in terms of preventing separation of the isolator is not achieved in that there can be failure of the second resilient member bonds between outer member 55 and rigid cap plate 65. The prevention of isolator failure by separation is the premise and motivation for the proposed combination of Nowak with Kubaugh, but such is not achieved thus the combination is improper and does not render the claimed invention obvious. Further applicants note that the shroud member 15 of Kubaugh is not bonded to the resilient member 12 of Kubaugh,

with such resilient member 12 bonded to a lateral strip 10. The combination of Nowak and Kubaugh does not render the present claims obvious.

Applicants respectfully request allowance of the present claims.

A Three Month Extension of Time to Respond is enclosed.

Enclosed is an Associate Power of Attorney.

Examiner is authorized to charge deposit account 12-2143 the amount required for a three-month extension of time for filing a response to the Office Action.

Respectfully submitted,

Edward F. Murphy, III
Attorney for Applicant
Reg. No. 38,251
Lord Corporation
111 Lord Drive
Cary, North Carolina 27511

919-468-5979 ext. 6205 phone
919-469-5226 fax

****

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed is being deposited on the date indicated below with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, DC 20231, with sufficient postage as first class mail (37 CFR 1.8(a)).

Laura A. Huntington
(Signature of person mailing paper)

January 17, 2002
Date

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. A single resilient member iso-elastic vibration isolation member comprising:

(a) an inner member comprising a frustoconical seat having an angled surface and an outer periphery diameter D' ~~having a first dimension~~;

(b) an outer member comprising a base and a shroud that extends away from the base, the shroud adapted to overlay the inner member, said shroud having an angled segment with an inner surface, said angled segment inner surface oriented substantially parallel to said angled surface of said frustoconical seat, said shroud defining an inner periphery diameter D'', said inner periphery diameter D'' less than said outer periphery diameter D' ~~defining an inner periphery having a second dimension, the second dimension being less than the first dimension~~; and

(c) a single resilient member constrained between the shroud angled segment inner surface and the inner member frustoconical seat angled surface, said single resilient member having a substantially trapezoidal cross section, said single resilient member bonded to said shroud angled segment inner surface and said inner member frustoconical seat angled surface, wherein said single resilient member bonded to said shroud angled segment inner surface and said inner member frustoconical seat angled surface provides for iso-elastic displacement of said inner member in a radial direction and in an axial direction from said outer member with said frustoconical seat outer periphery diameter D' providing an interfernce with said shroud inner periphery diameter D'' to prevent a seperation of the vibration isolation member in the event of a failure of said single resilient member~~, whereby the vibration isolation member provides iso-elastic stiffness and an~~

VERSION WITH MARKINGS TO SHOW CHANGES MADE

~~interference between the inner and outer members in the event of a failure of the resilient member~~.

2. The vibration isolation member of claim 1 wherein the inner member is comprised of a stem ~~and a seat~~.

3. CANCEL ~~The vibration isolation member as claimed in claim 2 wherein the seat is frustoconical~~.

4. CANCEL ~~The vibration isolation member as claimed in claim 2 wherein the seat is comprised of a first surface, a second surface spaced from the first surface and a third surface that joins the first and second surfaces~~.

5. CANCEL ~~The vibration isolation member as claimed in claim 3 wherein the third surface is oriented at an angle relative to the first surface~~.

6. CANCEL ~~The vibration isolation member as claimed in claim 4 wherein the angle is about 55°~~.

7. CANCEL ~~The vibration isolation member as claimed in claim 1 wherein the outer member shroud comprises a first segment, a second segment and a third segment, the second segment joining the first and second segments~~.

8. CANCEL ~~The vibration isolation member as claimed in claim 7 wherein the first segment is oriented substantially axially, the third segment is oriented substantially radially and the second segment is oriented at an angle relative to the first and third segments~~.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

9. CANCEL~~The vibration isolation member as claimed in claim 7 wherein inner member comprises a seat, the seat comprising a first surface, a second surface spaced from the first surface and a third surface that joins the first and second surfaces and wherein the third surface is oriented at an angle relative to the first surface, the third surface of the seat being substantially parallel to the second segment~~.

10. The vibration isolation member as claimed in claim 2, wherein the inner member further comprises an axially extending bore through the stem and seat.

11. The vibration isolation member as claimed in claim 1 wherein the resilient member is comprised of either silicone or synthetic rubber.

12. A combination comprising:

(a) a support structure;

(b) a suspended body located away from the support structure; and

(c) a single resilient member iso-elastic vibration isolation member joining the support structure and the suspended body to reduce the transmission of vibratory disturbances between the suspended body and support structure, the vibration isolation member comprising;

(i) an inner member comprising a frustoconical seat having an angled surface and an outer periphery diameter D' ~~an outer periphery having a first dimension~~;

(ii) an outer member comprising a base and a shroud that extends away from the base, the shroud adapted to overlay the inner member, said shroud having an angled segment with an inner surface, said angled segment inner surface oriented substantially parallel to said angled surface of said frustoconical seat, said shroud defining an inner periphery diameter D'', said inner periphery diameter D'' less than said outer periphery diameter D' ~~defining an inner periphery having a~~

~~second dimension, the second dimension being less than the first dimension~~; and

(iii) a single resilient member constrained between the shroud ~~and the inner member~~angled segment inner surface and the inner member frustoconical seat angled surface, said single resilient member having a substantially trapezoidal cross section, said single resilient member bonded to said shroud angled segment inner surface and said inner member frustoconical seat angled surface, wherein said single resilient member bonded to said shroud angled segment inner surface and said inner member frustoconical seat angled surface provides for iso-elastic displacement of said inner member in a radial direction and in an axial direction from said outer member with said frustoconical seat outer periphery diameter D' providing an interference with said shroud inner periphery diameter D'' to prevent a seperation of the vibration isolation member in the event of a failure of said single resilient member~~, whereby the vibration isolation member provides iso-elastic stiffness and an interference between the inner and outer members in the event of a failure of the resilient member~~.

13. The combination as claimed in claim 12 wherein the inner member includes ~~is unitary and is comprised of a frustoconical seat and~~ a cylindrical stem.

14. CANCEL~~The combination as claimed in claim 13 wherein the seat is comprised of a first surface, a second surface spaced from the first surface and a third surface that joins the first and second surfaces~~.

15. CANCEL~~The combination as claimed in claim 14 wherein the third surface is oriented at an angle relative to the first surface~~.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

16. CANCEL~~The combination as claimed in claim 12 wherein the outer member shroud comprises a first segment, a second segment and a third segment, the second segment joining the first and third segments~~.

17. The combination as claimed in claim 12 wherein the outer member and the support structure comprise a chamber~~, the inner member comprising a stem and a seat, the~~ with the inner member seat being located in the chamber.

18. The combination as claimed in claim 17 wherein the support structure and seat are separated by a distance.

19. CANCEL~~The combination as claimed in claim 12 wherein the inner periphery is located radially inwardly from the outer periphery~~.

20. The vibration isolation member as claimed in claim 1 wherein the shroud is conical.

21. The vibration isolation member as claimed in claim 1 wherein the shroud is comprised of a single wall ~~segment~~.

22. CANCEL~~The vibration isolation member as claimed in claim 1 wherein the inner periphery is located radially inwardly from the outer periphery~~.